Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Biology II

Exam III

1. This is the movement of material from an area of higher concentration to an area lower concentration without the input of energy.

A. Diffusion B. Cell membrane C. Osmoconformation D. Active transport

2. Cnidarians, such as jellies lack a circulatory system; instead they use a \_\_\_\_for gas exchange.

A. digestive cavity B. hepatic cavity C. gastrovascular cavity D. circulatory cavity

3. A circulatory system has circulatory fluid, a set of interconnecting vessels and a \_\_\_.

A. CNS B. muscular heart C. duodenum D. ganglia

4. In insects, other arthropods, and most molluscs, blood bathes the organs directly in a(n)\_.

A. gastrovascular cavity B. closed circulatory system C. open circulatory system D. tracheal system

5. Annelids, cephalopods, and vertebrates have a \_\_\_\_\_\_\_\_.

A. gastrovascular cavity B. closed circulatory system C. open circulatory system D. tracheal system

6. \_\_\_\_ are more efficient at transporting circulatory fluids to tissues and cells.

A. gastrovascular cavities B. closed circulatory systems C. open circulatory systems D. tracheal systems

7. In an open circulatory system, there is no distinction between blood and interstitial fluid, and this general body fluid is called\_\_\_\_

A. lymph B. mesentery C. hemolymph D. villi

8. Which of the following is the correct order from blood leaving the heart to its return?

A. Arteries, arterioles, capillary beds, capillaries, veins, venules.

B. Arterioles, arteries, capillary beds, capillaries, venules, veins.

C. Veins, venules, capillaries, capillary beds, arteries, arterioles.

D. Arteries, arterioles, capillaries, capillary beds, venules, veins.

9. Arteries and veins are distinguished by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A. O2 content, not by direction of flow. B. Direction of flow, not by O2 content.

10. Blood enters through a(n) \_\_\_\_\_ and is pumped out through a(n) \_\_\_\_\_\_.

A. atrium, ventricle B. ventricle, atrium

11. In \_\_\_\_\_ blood leaving the heart passes through two capillary beds before returning.

A. single circulation B. double circulation C. triple circulation

12. Amphibian, reptiles, and mammals have \_\_\_\_\_\_\_\_\_.

A. single circulation B. double circulation C. triple circulation

13. Bony fishes, rays, and sharks have \_\_\_\_\_\_.

A. single circulation B. double circulation C. triple circulation

14. In \_\_\_\_ oxygen-poor and oxygen-rich blood are pumped separately from the right and left sides of the heart.

A. single circulation B. double circulation C. triple circulation

15. In reptiles and mammals, oxygen-poor blood flows through the **\_\_\_** to pick up O2 through the lungs

A. pulmocutaneous circuit B. pulmonary circuit C. systemic circuit

16. In amphibians, oxygen-poor blood flows through a \_\_\_ to pick up O2 through the lungs and skin.

A. pulmocutaneous circuit B. pulmonary circuit C. systemic circuit

17. \_\_\_\_\_ have a three-chambered heart: two atria and one ventricle.

A. Mammals B. Birds C. Amphibians

19. \_\_\_\_\_\_\_ have a four-chambered heart with two atria and two ventricles.

A. Mammals B. Reptiles C. Amphibians

20. Birds have a \_\_\_\_\_\_\_\_\_\_ heart.

A. four-chambered B. three-chambered C. two-chambered

21. These help to prevent the back-flow of blood.

A. Venules B. atria C. valves D. capillary beds

22. Blood consists of several kinds of cells suspended in a liquid matrix called \_\_\_\_\_.

A. lymph B. plasma C. hemolymph D. monocytes

23. These cells called erythrocytes transport oxygen O2

A. Platelets B. Red blood cells C. White blood cells D. Lymph nodes

24. These cells called leukocytes function in defense.

A. Platelets B. Red blood cells C. White blood cells D. Lymph nodes

25. These cell fragments are used in the clotting process.

A. Platelets B. Red blood cells C. White blood cells D. Lymph nodes

26. This is the pressure exerted by a particular gas in a mixture of gases.

A. Confined B. Tidal C. Partial D. Complete

27. In a given volume, there is less O2 available in \_\_\_\_\_ than in \_\_\_\_\_.

A. air, water B. water, air

28. \_\_\_\_\_\_\_ moves the respiratory medium over the respiratory surface.

A. Respiration B. Ventilation C. Counter current exchange

29. Fish gills use a **\_\_\_** system, where blood flows in the opposite direction to water passing over the gills.

A. Tracheal exchange B. Counter current exchange C. Tidal exchange

30. The pathway of air in a human begins with the \_\_\_\_\_\_\_\_\_\_.

A. trachea B. alveoli C. pharynx D. esophagus

31. The pathway of air in a human ends in the \_\_\_\_ where gas exchange occurs.

A. trachea B. alveoli C. pharynx D. esophagus

32. Mammals ventilate their lungs by **\_\_\_\_\_\_\_\_**, which pulls air into the lungs.

A. positive pressure breathing B. negative pressure breathing C. tidal volume pressure

33. This increases the variation in offspring, providing an increase in the reproductive success of parents in changing environments.

A. asexual reproduction B. sexual reproduction C. parthenogenesis D. budding

34. \_\_\_\_\_\_\_ are isoosmotic with their surroundings and do not regulate their osmolarity.

A. Osmoregulators B. Osmoisomotics C. Osmoconformers D. Osmosis Jones

35. \_\_\_\_\_\_\_ expend energy to control water uptake and loss in a hyperosmotic or hypoosmotic environment.

A. Osmoregulators B. Osmoisomotics C. Osmoconformers D. Osmosis Jones

36. Most marine invertebrates are \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

A. Osmoregulators B. Osmoisomotics C. Osmoconformers D. Osmosis Jones

37. Some aquatic invertebrates in temporary ponds lose almost all their body water and survive in a dormant state called \_\_\_\_\_\_\_\_\_.

A. parthenogenesis B. osmoisomotics C. anhydrobiosis D. euryhaline

Some animals convert toxic ammonia(NH3) to less toxic compounds prior to excretion.

Match the animal to their excreted waste

A. Ammonia B. Uric Acid C. Urea

38. Bony fish \_\_\_\_\_ 39. Bird\_\_\_\_\_\_ 40. Mammal\_\_\_\_\_\_\_\_

41. Which of the excreted wastes listed above needs the least amount of water?  
A. Ammonia B. Uric Acid C. Urea

42. This structure of the neuron carries messages away from the cell body.

A. Dendrite B. Cell Body C. Axon

43. Radial animals exhibit cephalization, the clustering of sensory organs at the front end of the body

TRUE FALSE

44. Annelids and arthropods have segmentally arranged clusters of neurons called \_\_\_\_\_\_.

A. peripheral nerves B. nerves C. ganglia D. nerve nets

45. Cnidarians have a simple nervous system with neurons arranged in \_\_\_\_\_\_\_\_.

A. peripheral nerves B. brains C. ganglia D. nerve nets

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Biology II

Exam III

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| --- | --- |
| 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_ 9. \_\_\_\_\_ 10. \_\_\_\_\_ 11. \_\_\_\_\_ 12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_ 16. \_\_\_\_\_ 17. \_\_\_\_\_ 18. \_\_\_\_\_ 19. \_\_\_\_\_ 20. \_\_\_\_\_ 21. \_\_\_\_\_ 22. \_\_\_\_\_ 23. \_\_\_\_\_ 24. \_\_\_\_\_ 25. \_\_\_\_\_ | 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_ 9. \_\_\_\_\_ 10. \_\_\_\_\_ 11. \_\_\_\_\_ 12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_ 16. \_\_\_\_\_ 17. \_\_\_\_\_ 18. \_\_\_\_\_ 19. \_\_\_\_\_ 20. \_\_\_\_\_ |